

The Commissioner for PatentsRemarks

Claims 1-14, 16-20, 23, 24-26, 28-38, 42, 47, 51, and 55 of the present application have been rejected under 35 USC § 102(e) as being anticipated by Lehmann et al. US Patent No. 6,786,726. The Applicant respectfully traverses the rejection for the following reasons.

Lehmann et al. relates to a method for restoration of a patient's tooth. An electronic image of a patient's tooth is generated in a dentist's office by the dentist. The image includes color information of the tooth preparation or of the patient's tooth shade. The electronic image is forwarded to a dental laboratory by direct computer link or email. A technician at the laboratory evaluates the image and suggests restorative options to the dentist. The technician also selects the appropriate restoration tooth shade so that the dental prosthesis matches the color of the patient's tooth. The laboratory then manufactures the prosthesis utilizing a plurality of porcelain coatings.

Claims 1 and 23 of the present application are directed to a method to model dental restorations and a method for designing dental restoration with predetermined aesthetic qualities, respectively. These claims differ from Lehmann et al. in that the cited reference does not teach the step of "inputting said geometrical constraints and said aesthetic constraints to a computer to mathematically select from said material database and said procedure database a recipe for producing said dental restoration". The Examiner points to column 4, lines 22-58 and column 11, lines 60-67 of Lehmann et al. as describing this particular step of the claim. However, both of these passages, as well as the rest of the reference, fail to teach the step in question.

From the passage at column 4, lines 22-58, it appears that consultation of the network site is done based on the electronic images of a patient's tooth generated by the dentist. Using these images, the dentist or technician can consult the site in order to obtain information relevant to the dental restoration: "The site would provide access for users to information on materials, procedures involved in using such materials such as preparation design, recommended burs to achieve such a preparation, recommended temporization materials, cements that should be used with that given material,

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instructions on how to use such a cement (i.e., conditions such as whether one should etch or prime, for how long, whether to dry it or not, to pre-cure it or not, etc.), and where to buy such materials." (col. 4, lines 41-49). However, there are no teachings of a mathematical selection from a material database and a procedure database of a recipe for producing a dental restoration. This passage merely suggests that a database having all of the information can be accessed by either the dentist or the lab technician as a consultation tool. This passage does not teach inputting geometrical constraints and aesthetic constraints into a computer and generating, based on the data input, a recipe for producing the dental restoration.

The passage at column 11, lines 60-67 of Lehmann et al. describes how a correlation algorithm matches the shade of an image with a shade in a shade guide. This is used to determine how to best reproduce a tooth shade when preparing a restoration in order to match the other teeth in the mouth of the patient. This does not teach a step of inputting geometrical constraints and aesthetic constraints into a computer to mathematically select a recipe. The correlation algorithm is simply a shade matching algorithm for an electronic image to a set of shades.

In addition, Lehmann et al. at col. 4, lines 63-65 states the following: "Rather than just being a databank of information for the dentist to review, the dentist would be led through a step by step procedure to determine the most appropriate restorative path to take". The Applicant would like to point out that this statement does not refer to a step by step recipe that is generated, as per claim 1, but rather that the procedure to determine the most appropriate restorative path is step by step. This means that the user, whether this is the dentist or the lab technician, may go through a step by step procedure in order to determine which material to select, which procedures to follow, which shade to select, etc. This differs from the proposed method, wherein a plurality of variables are input into a system and the system mathematically selects a recipe for the dental restoration.

Therefore, given that a prima facie case of anticipation has not been made by the Examiner for independent claims 1 and 23, the Applicant respectfully requests that the rejection be withdrawn.

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Claim 34 has been amended to include the subject matter of claim 39. The Examiner has indicated that claim 39 would be allowable if rewritten in independent form. Therefore, the Applicant believes that claims 34 to 54 are now considered to be patentable.

Claim 55 has been amended to include the subject matter of claim 64, without the limitations of claim 60. The Applicant believes that Lehmann et al. does not teach that "the information received by said web site is analyzed to determine a recipe for fabricating a dental restoration". As stated above, Lehmann et al. does not teach the analysis of the information regarding the dentistry procedure. Lehmann et al. teaches the storing of the data and takes the user through a step by step procedure to determine the ideal restorative path to take, but does not analyze the data. Therefore, claim 55 as amended is not anticipated by Lehmann et al.

The Applicant would like to point out that while the Examiner has noted that the following citation is made of record and not relied upon but is considered to be pertinent to the present application: Pierre et al., "Esthetic Option for the Implant-Supported Single-Tooth Restoration-Treatment Sequence With a Ceramic Abutment", Journal of the Canadian Dental Association, October 2001, Vol. 67 No. 9; this piece of prior art is not citable since its publication date is October 2001 and the present application claims priority of Canadian Patent application number 2,342,709, filed on March 23, 2001.

In view of the foregoing, the Applicant believes the present application to be patentable and early and favorable notice is earnestly solicited.

Respectfully submitted,  
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